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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,873	12/02/2003	Shinji Kurihara	16359-003001 / 702/SM	1578
26171	7590	09/21/2006	EXAMINER	
FISH & RICHARDSON P.C. P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			PSITOS, ARISTOTELIS M	
			ART UNIT	PAPER NUMBER

2627

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/724,873

Applicant(s)

KURIHARA, SHINJI

Examiner

Aristotelis M. Psitos

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 17-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 17, 19-20, 22, 23, 25, 26 and 28-33 is/are rejected.
- 7) ☒ Claim(s) 18, 21, 24 and 27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Priority***

Applicant's response of 6/30/06 has been considered with the following results.

### ***Specification***

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The examiner will amend the title if applicant doesn't upon allowance.

### ***Claim Objections***

Claim 17 is objected to because of the following informalities: Line 6 refers to plural input terminals – i.e., first input terminals, while only one first input terminal is claimed/disclosed. Appropriate correction is required. The claim should be reviewed so as to read in proper idiomatic English. – i.e., the use of prepositions should be present.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 17,20,23 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Lampel.

The following analysis is made:

Claim 17

Lampel

A signal output circuit comprising:

see figure 1

a 180-degree phase shifting circuit

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for shifting a phase of an input signal by an odd multiple of 180 degrees; and

section 109

a first operational amplifier having first and second input terminals and an output terminal the first and second input terminals having a different polarity,

section 101

wherein the input signal is input into the first input terminals,  
wherein a 180 degree shifted signal output from the 180-degree phase shifting circuit is input into the second input terminal, and  
wherein a difference between the input signal and the 180 degree shifted signal is output from the output terminal.

As analyzed above, the elements positively recited are met by the above elements in figure 1 of Lampel.

With respect to claim 20, such a limitation is present in the above system of Lampel.

With respect to claim 23, such is present, i.e., the VCO.

Method limitations as present in claim 31 are met when the above system operates.

### ***Response to Arguments***

Applicant's arguments filed 6/30/06 have been fully considered but they are not persuasive. The claimed elements are met by the above reference. The examiner can appreciate a difference in the disclosure, however as analyzed above no difference between the claimed elements and the reference is found.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 19,22,25, 26, 28 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lampel further considered with Kuroda.

With respect to claims 19,22,25 and 28, they identify the input signal as that of a wobble signal.

No such input signal is defined in Lampel.

With respect to claim 16 and method claim 32, these differ from claim 17 in that it requires a 360-degree phase shifting section.

Lampel discloses a 180 degree shifting section, nevertheless, as further taught in this environment by Kuroda et al – see the description of the wobble detection and use thereof for the appropriate spindle driver and subsequent signal decoding capabilities, his sixth embodiment – commencing at col. 11 line 1, expands upon such to include multiples of 360 degrees. Furthermore, Kuroda et al also discloses the wobble signal.

It would have been obvious to modify the base system of Lampel with the above teaching motivation is to correct for such environment errors as recognized by Kuroda et al.

***Response to Arguments***

Applicant's arguments filed 6/30/06 have been fully considered but they are not persuasive. The claimed elements are met by the above reference. The examiner can appreciate a difference in the disclosure, however as analyzed above no difference between the claimed elements and the reference is found.

3. Claims 29, 30 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lampel considered with Kuroda et al and all further considered with Konishi.

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Claim 29 follows claim 17 and 26, i.e., it includes both a 180-degree odd multiple shifting section and a 360-degree shifting section.

The above combined systems – see the analysis of both paragraphs 1 & 2 provided for the 180 degree odd multiple shifting section and the 360-degree shifting section separately.

Konishi teaches in this environment the ability of serially connecting a first and second loop filter so as to control the clock signal in the optical environment.

It would have been obvious to modify the system of Lampel & Kuroda et al with the above overall teaching from Konishi – serial connection of loop sections, in order to adjust the frequency/phase of the clock signal as recognized – see abstract for instance – in Konishi.

The limitations of method claims 30 and 33 are met when the above combined system operates.

### ***Conclusion***

Claims 18,21,24 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M. Psitos whose telephone number is (571) 272-7594. The examiner can normally be reached on M-F: 6:00 - 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne D. Bost can be reached on (571) 272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Aristotelis M Psitos  
Primary Examiner  
Art Unit 2627

A handwritten signature in black ink, appearing to be 'AMP', written over the printed name of the examiner.

AMP